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(71) Applicant: ISUZU MOTORS LTD
(72) Inventor: ONO YUICHI
IKEDA TADASHI
TAWARA YASUTO
AKASHI KOHEI
OKONOGI KENICHI

(54) PRESS FIT METHOD AND PRESS FIT STRUCTURE

ing a press fit margin.
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(57) Abstract:

PROBLEM TO BE SOLVED: To provide a press fit method and a press fit structure which can improve transmitted torque and fixed strength of a shaft and a tube unit press fitted thereto, without enlarging a press fit margin.

SOLUTION: In the case of press fitting a tube unit 43 (45) to a shaft 42 (52) fixedly rotated, shot peening is applied to a press fit surface of either the shaft 52 or the tube unit 45, thereafter so as to press fit these shaft and tube unit. A fine protrusion is molded in irregular state by a shot ball 55 in one press fit surface applied with the shot peening, by bringing this fine protrusion 56 into contact with the other press fit surface at press fit time, an actual contact surface pressure is increased. The fine protrusion 56, worked and hardened by collision of the shot ball 55 to generate high hardness in short by forge molding, bites in the other press fit surface after press fitting. Therefore, transmitted torque and fixed strength of the shaft 52 and the tube unit 45 fitted thereto are improved without enlarg-

